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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,464	09/05/2003	Glen S. Axelrod	TFH047	8440
32047 7590 10/22/2009 GROSSMAN, TUCKER, PERREAULT & PFLEGER, PLLC 55 SOUTH COMMERCIAL STREET MANCHESTER, NH 03101				
EXAMINER				
COLE, ELIZABETH M				
ART UNIT		PAPER NUMBER		
1794				
MAIL DATE		DELIVERY MODE		
10/22/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/656,464

Applicant(s)

AXELROD, GLEN S.

Examiner

Elizabeth M. Cole

Art Unit

1794

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 9-14 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-14 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/11/09 has been entered.

2. Claims 1-5, 9-14, 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites "while still reducing tearing and puncture when chewed by an animal". It is not clear what is meant by "reducing", i.e., reduced compared to what? It is not clear what the reduction is, how much the reduction is, or what the comparative value is for determining that tearing and puncture due to the chewing is reduced.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 9-14, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denesuk et al, U.S. Patent NO. 6,196,156 in view of Jordan, U.S. Patent No. 5,226,384, Sullivan, U.S. Patent No. 5,087,499 and Lin et al, U.S. Patent No. 5,354,605 and Wellington Sears Handbook of Industrial Textiles, by Sabit Adanur, page

60.. Denesuk et al discloses an article for use by pets comprising a core which may comprise foam or other types of fillers such as synthetic and natural fibers, (col. 10, lines 28-41) and a fabric cover. The fabric cover may comprise two different types of fabric and each type of fabric only partially covers the core. See col. 10, line 60 – col. 11, line 7 and col. 11, lines 38-46 as well as example 4. Suitable fabrics include polyolefins, acetate, acrylic, nylons and polyesters. See col. 11, line 65 – col. 12, line 4. The fabrics can be woven, non-woven or knitted. See col. 9, lines 31-43. Denesuk differs from the claimed invention because Denesuk does not teach that at least one of the fibers should be a high strength fiber. Jordan teaches that high strength fibers such as aramid fibers can be used in forming covers for articles used by pets. See abstract. Therefore, it would have been obvious to have employed high strength fibers for parts of the cover of Denesuk which would be most exposed to wear and tear, biting, chewing, etc., motivated by the expectation that this would enhance the durability of the bed. Jordan teaches employing high strength fibers but does not teach blending the fibers with other fibers. Sullivan teaches that is known in the art to blend high strength fibers with other fibers, such as cotton, silk, nylon, polyolefins, etc. See col. 3, lines 56-64. Therefore, it would have been obvious to have blended the high strength fibers of Jordan with other fibers as taught by Sullivan, in order to form yarns which had additional properties such as enhanced softness, absorbency, hydrophobicity, etc., depending on what the final properties desired in the fabric were. For example, silk and cotton fibers would have been known in the art to provide enhanced softness and absorbency to a fabric relative to using all aramid yarns. Polyolefin yarns would

produce a more hydrophobic fabric. Also, considerations of economy would tend toward blending the fibers in order to arrive at a fabric having the desired properties at an economical cost. Jordan teaches employing multiple layers of high strength fibers for use in forming articles for use by pets. Neither Denesuk nor Jordan teach orienting the layers so that they have different axes of orientation relative to each other. Lin et al teaches that in forming nonwoven fabrics that such fabrics can be formed to comprise multiple layers wherein each layer has an axis of orientation which is an angle to another layer's axis of orientation. See col. 12, lines 19-44. Lin teaches that the fibers of each of the layers may be staple fibers, including high strength fibers. See col. 2, lines 20-35. The staple fibers are formed into layers of fiber arrays which are oriented relative to each other to form a high strength fabric. See col. 8, lines 29-55. Therefore, it would have been obvious to have oriented the nonwoven layers of Denesuk so that they had a different axis of orientation relative to each other as taught by Lin, in order to produce a stronger fabric.

5. With regard to the claims as amended, which recite that the high performance fibers have a monoaxial orientation of greater than 50%, as shown by "Industrial Textiles", it is well known and conventional to draw and thus orient polymeric fibers in order to increase their strength. Therefore, it would have been obvious to have drawn and oriented the high performance polymeric fibers of Jordan in order to further increase their strength. With regard to the degree of orientation, since the degree of orientation is directly related to the strength of the fiber in the direction of orientation, it would have been obvious to have optimized the orientation in order to have produced a

very strong fiber. With regard to the limitation that "while still reducing tearing and puncture when chewed by an animal", since Jordan teaches incorporating high strength fibers in to items which are used by animals, it would be expected that the use of higher strength fibers would result in reduced tearing and puncturing as compared to items without the high strength fibers, since the fibers are known in the art to be resistant to tearing and puncturing.

6. Applicant's arguments filed 9/11/09 have been fully considered but they are not persuasive. Applicant's arguments regarding the lack of orientation of the high performance fibers are moot in view of the new grounds of rejection.

7. Applicant argues that Sullivan does not teach blending or interweaving because in the example using Kevlar that the Kevlar fibers are wrapped around a continuous yarn. However, the disclosure of Sullivan is not limited to the examples but clearly teaches spinning combinations of staple fibers into yarns wherein the staple fibers can be what Applicant calls high performance fibers with other non high performance fibers. Applicant also argues that Sullivan teaches that all of the fibers should be puncture resistant and that therefore Sullivan does not teach a blend of non high performance and high performance fibers. However, Sullivan employs different terms than Applicant. Applicant defines high performance fibers as those which have particular tensile strength of modulus. Employing Applicant's definition, the polyaramids of Sullivan would be considered to be high performance fibers while the other fibers such as cotton or silk would not. Further, the person of ordinary skill would immediately know that polyaramid fibers such as KEVLAR fibers are much stronger than cotton or silk fibers.

Further, the examples of Sullivan teach forming combinations of polyaramid and other conventional or non -high performance fibers. Finally, Sullivan employs the terminology of "puncture resistant". Any fiber would have at least some resistance to puncturing.

8. Applicant argues that Jordan does not teach employing multiple layers of high strength fibers for use in forming articles by pets. However, Jordan teaches at least one aramid sheet and thus implicitly teaches more than one sheet. Further, Lin teaches a benefit wherein multiple layers of a nonwoven fabric are used wherein each layer has fibers which are oriented in a single direction and wherein different layers are arrayed at angles to each other in order to form a stronger material. Therefore, the person of ordinary skill in the art would have employed more than one layer of uniaxially aligned nonwoven fibers wherein different layers are aligned in different directions, in order to arrive at a laminate having optimum strength in different directions.

9. Applicant argues that Lin does not disclose a blend of high performance and non-high performance fibers. However, this feature is already taught by Sullivan. Lin is relied on for the teaching of providing non woven fibers in different layers wherein the fibers are aligned in one direction in each layer and wherein the different layers are oriented at different angles relative to each other in order to produce a laminate having high strength in different directions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Rena Dye may be reached at (571) 272-3186.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794

e.m.c